In the Claims:

1.   (CURRENTLY AMENDED) A proxy device configured for use with a windowing Internet Protocol (IP) data network, comprising:

a communication interface configured to intercept a first window of data packets transmitted from a source into the data network, transmit an acknowledgement from the proxy device to the source, and transmit the first window of data packets back into the network; ~~and~~

a processing system configured to communicate with the communication interface, receive the first window of data packets, and generate the acknowledgement in response to the first window of data packets;

a buffer configured to accumulate data packets of the first window of data packets;

an interception routine that configures the processing system to receive the first window of data packets;

an error checking routine that configures the processing system to perform an error checking operation; and

an acknowledgement routine that generates a positive acknowledgement if the error checking routine does not detect any errors in the first window of data packets and generates a negative acknowledgement if the error checking routine does detect errors in the first window of data packets.

2.   (CANCELED)

3.   (CANCELED)

4.   (CANCELED)

5.   (ORIGINAL) The proxy device of claim 1, with the communication interface being further configured to receive a second window of data packets from the source in response to the acknowledgement.

6.   (CURRENTLY AMENDED) The proxy device of claim 1, ~~with the processing system being further configured to perform an error checking operation on the first window of data packets and to generate a positive acknowledgement if the error checking operation detects no errors in the first window of data packets,~~ wherein the positive acknowledgement initiates transmission of a second window of data packets by the source.

7.   (CURRENTLY AMENDED) The proxy device of claim 1, ~~with the processing system being further configured to perform an error checking operation on the first window of data packets and to generate a negative acknowledgement if the error checking operation detects errors in the first window of data packets,~~ wherein the negative acknowledgement initiates retransmission of the first window of data packets by the source.

8.   (ORIGINAL) The proxy device of claim 1, with the communication interface being further configured to receive a second acknowledgement in the proxy device in response to transmitting the first window of data packets back into the data network.

9.   (CANCELED)

10.   (CURRENTLY AMENDED) A method of operating a proxy device in a windowing Internet Protocol (IP) data network, the method comprising:

intercepting in the proxy device a first window of data packets transmitted from a source into the data network;

buffering the first window of data packets;

performing an error checking operation on the first window of data packets;

generating an acknowledgement in the proxy device in response when the first window of data packets is received, wherein the acknowledgement is a positive acknowledgement if the error checking operation does not detect any errors in the first window of data packets and wherein the acknowledgement is a negative acknowledgement if the error checking routine does detect errors in the first window of data packets;

transmitting the acknowledgement from the proxy device to the source; and

transmitting the first window of data packets back into the data network.

11.   (ORIGINAL) The method of claim 10, further comprising receiving a second window of data packets from the source in response to the acknowledgement.

12.   (CURRENTLY AMENDED) The method of claim 10, ~~further comprising performing an error checking operation on the first window of data packets and generating a positive acknowledgement if the error checking operation detects no errors in the first window of data packets,~~ wherein the positive acknowledgement initiates transmission of a second window of data packets by the source.

13.   (CURRENTLY AMENDED) The method of claim 10, ~~further comprising performing an error checking operation on the first window of data packets and generating a negative acknowledgement if the error checking operation detects errors in the first window of data packets,~~ wherein the negative acknowledgement initiates retransmission of the first window of data packets by the source.

14.   (ORIGINAL) The method of claim 10, further comprising receiving a second acknowledgement in the proxy device in response to transmitting the first window of data packets back into the data network.

15.   (CURRENTLY AMENDED) A proxy network for a windowing Internet Protocol (IP) data network, comprising:

   a first proxy device configured to receive a first window of data packets transmitted from a source, transmit a first acknowledgement to the source in response, replace an original destination address of each data packet of the first window of data packets with a second proxy device address to create a first modified window of data packets, and transmit the first modified window of data packets to a second proxy device corresponding to the second proxy device address;

   wherein the first proxy device comprises a communication interface configured to communicate over the windowing Internet Protocol (IP) data network, receive a third window of data packets, transmit a third acknowledgement to the source, and transmit a third modified window of data packets;

   wherein the first proxy device further comprises a processing system configured to communicate with the communication interface, create a third modified window of data packets by replacing a destination address of each data packet of the third window of data packets with a subsequent proxy device address if the third modified window of data packets will be transmitted to a subsequent proxy device or replacing the destination address with an original destination address if the third modified window of data packets will not be transmitted to the subsequent proxy device; and

   the second proxy device configured to receive the first modified window of data packets, transmit a second acknowledgement to the first proxy device in response, replace the second proxy device address with a third proxy device address to create a second modified window of data packets if the second modified window of data packets will be transmitted to a third proxy device or replace the second proxy device address with the original destination address to create the second modified window of data packets if the window of data packets will not be transmitted to the third proxy device, and transmit the second modified window of data packets.

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16.   (CANCELED)

17.   (ORIGINAL) The proxy network of claim 15, wherein the processing device accesses a proxy routing algorithm to determine whether to replace the destination address with the original destination address or the subsequent proxy device address.

18.   (ORIGINAL) The proxy network of claim 15, wherein the processing system accesses a proxy routing algorithm, a list of local addresses, and a list of proxy devices in order to determine whether to transmit the second modified window of data packets to the destination, wherein the second modified window of data packets is transmitted to the subsequent proxy device if the destination is not in the list of local addresses, with the subsequent proxy device being determined by the list of proxy devices.

19.   (CURRENTLY AMENDED) <u>A proxy network for a windowing Internet Protocol (IP)</u> <u>data network, comprising:</u>

<u>a first proxy device configured to receive a first window of data packets transmitted from</u> <u>a source, transmit a first acknowledgement to the source in response, replace an original</u> <u>destination address of each data packet of the first window of data packets with a second proxy</u> <u>device address to create a first modified window of data packets, and transmit the first modified</u> <u>window of data packets to a second proxy device corresponding to the second proxy device</u> <u>address;</u>

<u>the second proxy device configured to receive the first modified window of data packets,</u> <u>transmit a second acknowledgement to the first proxy device in response, replace the second</u> <u>proxy device address with a third proxy device address to create a second modified window of</u> <u>data packets if the second modified window of data packets will be transmitted to a third proxy</u> <u>device or replace the second proxy device address with the original destination address to create</u> <u>the second modified window of data packets if the window of data packets will not be</u> <u>transmitted to the third proxy device, and transmit the second modified window of data packets;</u> <u>and</u>

<u>wherein the first proxy device and the second proxy device are</u>
~~The proxy network of claim 15, with the proxy device being~~ further configured to receive a data packet in the particular proxy device as part of a data transfer, with said data packet including a source address and an incoming destination address, determine whether the incoming destination address matches a proxy device address of the particular proxy device, obtain a first proxy address as a proxy destination address if the incoming destination address matches the proxy device address and if the particular proxy device is a first proxy device of the data transfer, obtain a new proxy address as the proxy destination address using the incoming destination address if the incoming destination address matches the proxy device address, and replace the incoming destination address in the data packet with the proxy destination address if the incoming destination address matches the proxy device address or if the particular proxy device is the first proxy device.

20.   (ORIGINAL) The proxy network of claim 15, with a particular proxy device of the proxy network being configured to intercept a first data packet of the window of data packets, determine a destination of the first data packet and a corresponding routing path, determine a set of two or more proxy devices to be included in the routing path, and program the set of two or more proxy devices to relay data packets of the window of data packets forward to the destination and relay acknowledgements back to previous proxy devices and to the source.

21.   (CURRENTLY AMENDED) A method of operating a proxy network in a windowing Internet Protocol (IP) data network, with the method comprising:

receiving from a source a first window of data packets in a first proxy device of the proxy network;

buffering the first window of data packets;

performing a first error checking operation on the first window of data packets;

transmitting a first acknowledgement to the source in response, wherein the first acknowledgement is a positive acknowledgement if the first error checking operation does not detect any errors in the first window of data packets and wherein the first acknowledgement is a negative acknowledgement if the first error checking routine does detect errors in the first window of data packets;

replacing an original destination address of each data packet of the first window of data packets with a second proxy device address to create a first modified window of data packets;

transmitting the first modified window of data packets to a second proxy device corresponding to the second proxy device address;

receiving the first modified window of data packets in the second proxy device;

buffering the first modified window of data packets;

performing a second error checking operation on the first modified window of data packets;

transmitting a second acknowledgement to the first proxy device in response, wherein the second acknowledgement is a positive acknowledgement if the second error checking operation does not detect any errors in the first modified window of data packets and wherein the second acknowledgement is a negative acknowledgement if the second error checking routine does detect errors in the first modified window of data packets;

replacing the second proxy device address with a third proxy device address to create a second modified window of data packets if the second modified window of data packets will be transmitted to a third proxy device;

replacing the second proxy device address with the original destination address to create the second modified window of data packets if the window of data packets will not be transmitted to the third proxy device; and

transmitting the second modified window of data packets.

22.   (ORIGINAL) The method of claim 21, further comprising receiving a second window of data packets from the source in response to the first acknowledgement.

23.   (CURRENTLY AMENDED) The method of claim 21, ~~further comprising performing an error checking operation on the first window of data packets and generating a positive acknowledgement if the error checking operation detects no errors in the first window of data packets,~~ wherein if the first acknowledgement is a positive acknowledgement, the first ~~positive~~ acknowledgement initiates transmission of a second window of data packets by the source.

24.   (CURRENTLY AMENDED) The method of claim 21, ~~further comprising performing an error checking operation on the first window of data packets and generating a negative acknowledgement if the error checking operation detects errors in the first window of data packets,~~ wherein if the first acknowledgement is a negative acknowledgement, the first ~~negative~~ acknowledgement initiates retransmission of the first window of data packets by the source.

25.   (ORIGINAL) The method of claim 21, further comprising receiving a third acknowledgement in the proxy device in response to transmitting the second modified window of data packets.

26.   (ORIGINAL) The method of claim 21, wherein the first and second acknowledgements comprise positive acknowledgements.

27.   (ORIGINAL) The method of claim 21, with the transmitting the second modified window of data packets comprising transmitting the second modified window of data packets to the destination.

28.   (ORIGINAL) The method of claim 21, with the transmitting the second modified window of data packets comprising transmitting the second modified window of data packets to a third proxy device.

29.   (ORIGINAL) The method of claim 21, with operation of a particular proxy device of the proxy network comprising:

receiving a data packet in the particular proxy device as part of a data transfer, with said data packet including a source address and an incoming destination address;

determining whether the incoming destination address matches a proxy device address of the particular proxy device;

obtaining a first proxy address as a proxy destination address if the incoming destination address matches the proxy device address and if the particular proxy device is a first proxy device of the data transfer;

obtaining a new proxy address as the proxy destination address using the incoming destination address if the incoming destination address matches the proxy device address; and

replacing the incoming destination address in the data packet with the proxy destination address if the incoming destination address matches the proxy device address or if the particular proxy device is the first proxy device.

30.   (ORIGINAL) The method of claim 21, with operation of a particular proxy device of the proxy network further comprising:

intercepting a first data packet of the window of data packets;

determining a destination of the first data packet and a corresponding routing path;

determining a set of two or more proxy devices to be included in the routing path; and

programming the set of two or more proxy devices to relay data packets of the window of data packets forward to the destination and relay acknowledgements back to previous proxy devices and to the source;

wherein the data packets of the window of data packets are relayed through the set of proxy devices before the data packets reach the destination.